October 29, 2004

Toye Simmons
Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road
Lisle, Illinois 60532-4352

Dear Ms. Simmons,

I recently received Amendment No. 32 to NASA Glenn Research Center's Materials License No. 34-00507-16. Upon review, I noted a few items that need to be revised.

1. The strontium-90 source listed as item "F" of the Form 374 was identified in the renewal application as being used for "calibration of health physics instruments." Section 9, "Authorized Use," of the Form 374 identifies its use as "For storage only incident to disposal."

2. The renewal application requested a quantity of six for the polonium-210 sources listed under item "L." Section 8, "Maximum amount...," of the Form 374 limits possession to three sources.

3. The "Authorized Use" of "For storage only incident to disposal" does not accurately fit all sources so categorized on the Form 374. In the renewal application, the use of several radioactive sources was identified simply as "Storage." I hesitated to classify them as "For storage only incident to disposal" because some of them may be put back into service. Four sources that come to mind are the cesium-137 sources listed under items "E" and "G." These Berthold and Texas Nuclear sources are incorporated into density measuring devices that were used to measure the solids content of liquid systems. While they have been in storage for many years, they could be put back into service.

In addition to the above-mentioned revisions, I would like propose altering the "Authorize Use" for items "M. and N" listed under section 9 of the Form 374. These americium-241 foil sources are used for research involving the development of flow and particle monitoring devices. The specific research activities are described in the letters noted under section 9. I would like to change the "Authorized Use" statement to be more general..."For research involving measurement of flow parameters, or monitoring/characterization of aerosols or particles." My reason for making this request is that I believe I will have at least one or two more researchers who will want to use these small alpha sources for performing such research. In any future uses of these foil sources, the individuals would become "radiation workers" and be trained accordingly. Specifics on other use requirements, such as dosimetry, source leakage testing, PPE, etc., would follow the conditions of our license and radiation safety program.

Please contact me after you have had the opportunity to review this letter. I would like to speak with you about the "storage" issue noted as item 3 above and the "authorized use" inquiry in the previous paragraph.

I hope your week off was enjoyable.

Sincerely,

Christopher J. Blasio
Radiation Safety Officer
NASA Glenn Research Center
Cleveland, Ohio 44135
(216) 433-6520

National Aeronautics and
Space Administration
John H. Glenn Research Center
Mail Code 6-4
21000 Brookpark Road
Cleveland, OH 44135-3191
C. Blasio

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U.S. Nuclear Regulatory Commission
Region III
attn: Toye Simmons, Materials Lic. Br.
2443 Warrenville Rd
Lisle, IL 60532-4352

60532#3673

November 10, 2004

Toye Simmons
Materials Licensing Branch
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road
Lisle, Illinois 60532-4352

Ms. Simmons,

Here's the information about our licensed sources. It's about the same as what was sent with the renewal application in June except I (1) added the "item #..." column, (2) reordered the entries based on this character, and (3) updated the "Use of..." column. The lined through information in this latter column shows what was previously provided.

Item # on Form 374	**Radioactive Material Description**	**Use of Radioactive Material**
A	Carbon-14, Foil Source *Anticipated Possession Limit:* One at NTE 1 μCi *Mfr or Dist:* Amersham Corp. *Model No:* TO77 *SSDR No:* None	Storage
B	Cesium-137, Sealed Source *Anticipated Possession Limit:* Two at NTE 15 μCi EA *Mfr or Dist:* NBS & Isotope Products Laboratories *Model No:* None (NBS) & LB-137 (IPL) *SSDR No:* None	Storage.
C	Americium-241/Beryllium, Sealed Source *Anticipated Possession Limit:* One at NTE 1 Ci *Mfr or Dist:* General Nuclear, Inc. *Model No:* None (serial no. NB-200) *SSDR No:* None	~~Storage.~~ For storage only incident to disposal.
D	Californium-252, Sealed Source *Anticipated Possession Limit:* One at NTE 59 mCi *Mfr or Dist:* Battelle Laboratories *Model No:* GI-Cf-CS-1 *SSDR No:* None	~~Storage.~~ For storage only incident to disposal.
E	Cesium-137, Sealed Source *Anticipated Possession Limit:* One at NTE 150 mCi and One at NTE 20 mCi *Mfr or Dist:* Berthold Systems *Model No:* LB 7440 D Source Shielding *SSDR No:* NR-8050-D-802-B	~~Storage.~~ For use in a densitometer in support of research activities.
F	Strontium-90, Sealed Source *Anticipated Possession Limit:* One at NTE 1 μCi *Mfr or Dist:* Isotope Products Laboratory *Model No:* *SSDR No:* None	Calibration of HP instrumentation.

Item # on Form 374	Radioactive Material Description	Use of Radioactive Material
G	Cesium-137, Sealed Source *Anticipated Possession Limit:* Two at NTI 1 Ci EA *Mfr or Dist:* Texas Nuclear *Model No:* SG-5202 and SG-5203 Housings *SSDR No:* TX-0634-D-139-B and TX-0634-D-140-B	~~Storage.~~ For use in a densitometer in support of research activities.
H	Promethium-147, Sealed Source *Anticipated Possession Limit:* One at NTE 30 mCi *Mfr or Dist:* Amersham Corp *Model No:* PHC.C1 *SSDR No:* MA-1059-S-219-S	Storage.
I	Cobalt-60, Sealed Source *Anticipated Possession Limit:* One at NTE 1.5 mCi *Mfr or Dist:* ORNL *Model No:* Custom Source *SSDR No:* None	~~Storage.~~ For storage only incident to disposal.
J	Cesium-137, Contaminated Cyclotron Components/Equipment *Anticipated Possession Limit:* NTE 1 μCi *Mfr or Dist:* N/A *Model No:* N/A *SSDR No:* N/A	For storage only incident to disposal.
K	Americium-241, Plated Foil *Anticipated Possession Limit:* One at NTE 100 μCi *Mfr or Dist:* Isotope Products Laboratories *Model No:* AFR Series *SSDR No:* CA-0406-S-156-S	Research as described in letter dated 8/13/99.
L	Polonium-210, Sealed Solid Metal Foil *Anticipated Possession Limit:* Six at NTE 800 μCi *Mfr or Dist:* NRD *Model No:* P-001 *SSDR No:* NY-502-S-106-S	~~Research as described in letter dated 2/7/2001.~~ For research involving measurement of flow parameters, or monitoring/ characterization of aerosols or particles.
M	Americium-241, Foil Source *Anticipated Possession Limit:* Ten at NTE 1 μCi EA *Mfr or Dist:* AEA Technologies, Inc *Model No:* AMM.1001H *SSDR No:* MA-1059-S-174-S	~~Research as described in the letters dated 1/8/2004 and 2/12/2004~~. For research involving measurement of flow parameters, or monitoring/ characterization of aerosols or particles.
N	Americium-241, Foil Source *Anticipated Possession Limit:* Five at NTE 1 mCi EA *Mfr or Dist:* AEA Technologies, Inc *Model No:* AMM Series *SSDR No:* NR-136-S-208-S	~~Research as described in the letter dated 2/12/2004~~. For research involving measurement of flow parameters, or monitoring/ characterization of aerosols or particles.

As discussed, items E and G on the Form 374, are used in density measuring devices. The SSDR Number is provided for each. For the Texas Nuclear sources (item G), the larger source (A_0=1 Ci) is associated with the SSDR of TX-0634-D-140-B and the smaller source (A_0=0.5Ci) is associated with TX-0634-D-139-B.

Also, after looking over the "Uses of Radioactive Material," I thought it would be appropriate to use "For research involving measurement of flow..." for item L also. The research involving the polonium-210 sealed foil sources falls within the scope of this stated "Use" and I believe this slight change would also help to clean up the license.

I think I covered everything we spoke about yesterday. Please let me know if I forgot anything or if you have other questions.

Sincerely,

Christopher Blasio
Radiation Safety Officer
NASA Glenn Research Center
Cleveland, Ohio 44135
(216) 433-6520

From: Christopher Blasio <Christopher.J.Blasio@nasa.gov>
To: <tls@nrc.gov>
Date: 11/10/04 8:43AM
Subject: NASA License Information

Ms. Simmons,

Since the information I am providing includes a table, I thought it would be better to send it as a Word file.

Call me if you have any questions. I will be leaving today at 2:30 to attend a teacher's conference and will be taking off Friday to make it a long weekend.

R/

Chris Blasio

Christopher J. Blasio CIH, CSP
Environmental Management Office
John H. Glenn Research Center
Mailstop 6-4
21000 Brookpark Road
Brookpark, Ohio 44135
(216) 433-6520 phone
(216) 433-8719 fax
Christopher.J.Blasio@nasa.gov

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Mime.822	67568	

Options

Expiration Date:	None
Priority:	Standard
Reply Requested:	No
Return Notification:	None
Concealed Subject:	No
Security:	Standard

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03620
Status Code: 0
Fee Category: EX 3P
Exp. Date: 20141031
Fee Comments: 3P CORRECT AS OF 10/99
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED
   Applicant/Licensee: NATIONAL AERONAUTICS & SPACE ADM.
   Received Date: 20041102
   Docket No: 3005626
   Control No.: 313875
   License No.: 34-00507-16
   Action Type: Amendment

2. FEE ATTACHED
   Amount: Ø
   Check No.: Ø

3. COMMENTS

Signed D. A. Hersey
Date 11-17-2004

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:
   Amendment _____
   Renewal _____
   License _____

3. OTHER _____
   _____

Signed _____
Date _____